

A Practical
T R E A T I S E
O F T H E
P L A G U E,

A N D

All Pestilential Infections that have
happen'd in this Island for the last
Century.

Laying down the

Rules and Methods then used by the
most learned Physicians of those Times, (as *Burler,*
Atkins, Bate, Johnston, Fabritius, Regemorterus,
Rudgeley, Rhede, Tulpus, Wetherburn, and other
great Names) as well as what are now proper to
be used, in order to prevent the spreading of
that Contagion.

W I T H A

Prefatory Epistle address'd to Dr. M E A D,
on Account of his short Discourse
concerning *Pestilential Contagion.*

By JOSEPH BROWNE, L. L. M. D.

L O N D O N :

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To the Learned

Dr. *M E A D*,

Fellow of the College of
Physicians, &c.



WITH the utmost regard to your Merit, and that great Name you have obtain'd in the World, this Prefatory Epistle entreats a candid Reception ; and as your Discourse of *Pestilential Contagion*, is written from a real Concern you have for your Country and the publick Good, the same laudable Views have ex-

torted the following Thoughts, which are more particularly address'd to your self ; for as you have been pleas'd to write upon so important a Subject, and as the Character you bear will establish whatever you say for a Law, so I thought it my Duty to cast in my Mite, if any Hints of mine can prove serviceable to your good Designs, as I am well assured you are capable of improving them to the Advantage of the Common-weal.

What I offer to your Consideration in the succeeding Pages, is the Product of the most learned Physicians of the Age they lived in, whose Names are far from being unknown to you, as *Mayerne, Butler, Bate, Burrel, Fabritius, Johnston, Rudgeley, Rhede, Tulpus, Gibson, Harvey, Goddard and Scarburgh* ; with many others throughout the Reigns of K. *James the First, King Charles the First*

First and Second ; from whose mature Consultations and Directions, these Sheets are collected and compiled. I thought indeed when this Subject was first stirr'd in, that I had dispos'd of my Manuscripts of the Plague, among many others that I sold some Years ago, to the worthy President, Sir *Hans Sloan*, Bart. till I saw your Tract, which put me in mind of my own Papers, which I have endeavour'd to bring into as short a Compass as I could, lest I should prove burthensome to you and the Publick.

I was disappointed, I confess, *Sir*, when I read your late Piece, notwithstanding your Endeavours to anticipate our Expectations, when you say, You had rather put down the principal Heads of Caution, than a Set of Directions in Form ; for I must own, I expected from so learned a Pen as yours, an elaborate

rate Treatise, rather than a short Discourse upon this Subject, when all the Eyes of *Europe* are fixed on the terrible Consequences of the Plague, should the Disease spread farther or break out afresh ; and all the Eyes of the People of *Great Britain* look stedfastly on you, as one from whom they may expect Deliverance.

You very rightly observe in the Beginning of your Discourse, that Contagion is propagated by three Causes ; the *Air, diseased Persons, and Goods transported from infected Places* ; and with Submission to the Judgment of the Learned, if you had added Two other Causes, *viz. Diet, and Diseases that are the Causes of other Diseases* ; there are many Authorities, and a great deal of Reason to back them. For though the Air is universally allowed to be the first Cause in propagating Contagion,

tagion, because being too moist when Showers descend during the sultry Heats of *August*, especially in hot Countries near the Sea in *Africa*, and *Grand Cairo* in *Egypt*, and in other low Scituations, thereby the Spring of the Fibres is more abundantly relaxed, which makes the Circulation slow, and from that Slowness renders the Perspirations languid, whence the Humours become apt for Corruption, one of the grand Causes of Contagion: Besides, the Regulation or Observance of the external Air, is necessary to the Body, as it hinders too great an Expansion of the Fluids and Solids; from whence it may be easily judged, that a depraved Air is the Author of malignant Fevers.

Now tho' the Air, as I said before, be universally allow'd a Cause; the Aliment or Diet, because it
affords

affords Matter to the Juices, does not less contribute to the Generation of Diseases; for the more a Man eats, the less he perspires; the less he perspires, the more Danger there is of a *Plethora*. Again, all Things that subject to Fermentation are bad, and all Things which relax the Tone, and incline it to Flatulencies, Diarrhea's, and all putrid Diseases which arise from too great Plenty of *Serum*. Part of our Diet we may reckon Water, which if it be sharp and chalky, causes Obstructions in the Glands; if putrid and corrupt, it produces malignant Diseases; but the hard and ponderous Waters create flatulent Obstructions, and diminish the Natural Excretions.

It is a general Observation, that the *Spaniards, Italians, French, Germans, Polanders* and *Silesians*, are subject to burning and malignant Fevers,

Fevers, among whom we may place the *Hungarian* ; for what you mention concerning the *Sweating Sickness* in *England*, call'd *Sudor Anglicus* and *Febris Ephemera Britannica*, *Wedelius* and *Mayerne* call *Febris Hungarica* ; and in the *Bibliotheca Anatomica*, you may find a Description of it as coming from *Hungary*, by some Troops sent thither against the *Turks* by *Henry* the 6th. King of *England*. Now, the Reason why these People abound so much with this Disease is, because they delight in the hot acrid Diet of Onions, Garlick, Sallery, &c. Beside, the Air is more intemperate and unequal with them than us, from whence the Tone of the Muscles and Fibres become relaxed, Perspiration is remitted, whereby their Bodies readily receive Epidemical Diseases, bloody Fluxes, &c.

I have gone through the Fourth Cause, by which Contagion may be propagated; I come now to hint at the Fifth, *viz.* of *Diseases* that are the Causes of other *Diseases*; among these, the Progression of the Disease it self towards another, is to be assign'd: too large an *Hæmorrhage* from the Nostrils, disposes the Parts to a Vertigo or Apoplexy. Colliquative Sweats relax the Tone of the Parts, hinder Digestion, and promote the Hæctick: Obstructions of the Bilious Ducts, produce the black and yellow Jaundice, Inflammations of the Stomach, Vomiting, and spasmodick Contractions about the Heart. A *Cachexia* in acute Fevers, will beget a Malignity, a Malignity in putrid ones the *Plague*; for when the *Stasis* of the Blood and *Serum* are corrupted, there happens a Defection or want of Strength and Spirits, Loss of Sense,

Sense, Coldness of the extream Parts, and Burning within, a weak, slow and unequal Pulse. There is another Malignity that shews it self by constant Waking, Delirium, wildness in the Eyes, Leaping of the Tendons, and a trembling Pulse.

The next thing you are pleas'd to remark, as being of the same kind of Fever with what you call *Sudor Anglicus*, and brought from *Dunkirk* 1713. I remember the Disease very well, and its Symptoms, which I was seiz'd with in *August* 1712, to the best of my Remembrance; for we had a very brisk Trade with *Dunkirk* the Year before the Soldiers came over. I am more confirm'd in this, by applying my self to my Books; wherein I find several Patients at that time, who were afflicted not only with a *Diarrhea* and Vomiting, but were seized with Shiverings and

Dizziness of the Head, and also with a Loss of Pulse, and Dejection of Spirits.

I am sorry I cannot come into the Opinion which you cite from *Hodges de Peste*, and say, it was generally allowed, that the Contagion came by Cotton imported from *Turkey* ; and afterwards strengthen the Argument by your own Reason and Authority : For if this Reason was to be admitted, it must create our Wonder and Admiration, how we have escaped from Infection so many Years as are past since 1665, considering so many *Plagues* as have happen'd in so many different Parts of *Turkey*, to which we trade, and from whence we bring *Cotton*, *Mohair*, and the like dangerous Commodities. Now it is hardly possible to think, but in all this Time, considering the Encrease of Trade from those Parts within the
last

last Fifty Years, but that some Goods must have been pack'd up by Persons infected with the *Plague*, either at *Constantinople*, *Smyrna*, *Scandaroon*, or *Aleppo*.

Besides, the great Quantities of *Coffee* we import from *Grand Cairo*, by Way of *Alexandria* and *Rosetta*, must spread the Contagion here; 'tis notoriously known, that *Grand Cairo* seldom or never escapes being visited with the *Plague* once a Year, and sometimes has it both in the Vernal as well as Autumnal Season; and tho' *Coffee* it self may not be so susceptible of pestilential *Effluvia's*, as to be able to retain the Infection so long, or that the *Effluvia's* of *Coffee* may come to act as a Counterpoison against this Infection; yet the Canvass Bags, which the *Coffee* is brought in, seem to me to be a Body apt enough to convey the contagious Seeds of the *Plague*

Plague from the *Mediterranean* hither.

That we may trace the Origine of this from *Asia*, you observe right from your Author, as taking its Rise in *China* ; tho' I beg leave to think it rather came from *Tartary*, except the Historian reckon'd *China* as *Tartary*, they being united into one ; for the *Plague* has ravaged that Country in all Ages : And several Authors are of Opinion, that it proceeded from the great Quantities of Horse-Flesh eaten by the Inhabitants, from whence proceed an innumerable Production of Insects and other verminous Animalcula that infect the Air ; and this Contagion is diffused through the Country, according to the Seasons of the Year, and the fittings of the Winds ; tho' you are pleas'd to say, *That some Authors have imagined Infection to be performed by the Means of*
In-

Insects, the Eggs of which may be conveyed from Place to Place, and make the Disease, when they come to be hatch'd; that this is a Supposition grounded upon no manner of Observation, so you think there is no need to have recourse to it. If so, Vallisnerius in his Tract, De l' Origine de Vermi, and Bidloe, De Animalculis, would not have taken so much Pains about the Matter : For tho' Bidloe denies those Animalcula to proceed from Putrefaction or Corruption, according to equivocal Generation, yet says, Omne vivens Animatum & Vegetans ex sibi similibus, atque ita ex ovulis vel semine nasci.

But I humbly beg leave to be indulged a little further, in relation to this Point of Infection being conveyed by the Means of Insects. The Power and Efficacy of Worms and Insects, to procure Diseases, saith *Wedelius*, is very extensive ;
and

and the Vulgar have not only err'd in this, if it be an Error, but many learned Physicians and Naturalists have been, and are still of Opinion, that the *Plague* arises from an animated or living Putrefaction. *Kircher*, in his Treatise of the *Plague*, brings this upon the Stage ; from whence the Learned at that time asserted, that the Air might be demonstrated to be Verminous by the Microscope ; which seems to stand confirmed by *Malpighius*, *Leewenhoock*, *Morgagni*, *Redi* and *Mangetus*.

I do not say, that this Hypothesis, properly speaking, does explain the Nature of the *Plague* ; for as it cannot be denied, but that Worms are frequently generated in the *Plague* and *Pestilential Diseases* ; so it does not follow from thence, that those Worms are Authors of them ; or, as *Conringius*, in his Dissertation
of

of the *Plague* asserts, is there any Force or Consequence in what *Kircher* saith, that Worms are often generated in the *Plague*, and therefore that they are the Seminaries of the *Plague*.

A verminous Putrefaction is not always found in all Diseases arising from Corruption, and therefore cannot obtain ; tho' what *Langius*, who publish'd *Kircher*, says, is remarkable, That in all Diseases proceeding from Putrefaction, there may be found a verminous Corruption ; whence come *Epileptick Convulsions*, and the like Symptoms. So he concludes from these Principles, that the *Small-Pox*, *Measles* and *malignant Fevers*, are nothing but Worms.

I have not the Opportunity of such a curious and useful Library as *Dr. Mead*, &c. therefore submit my self to those who have

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the Advantage to shine in Title Pages : However, I have not made use of an Author contrary to his Meaning, if I may be allow'd the Favour to understand the Text. But lest I shou'd be thought guilty of Mistakes, pray take the further Confirmation of the Universality of the Opinion concerning Insects, applicable to this Subject, from the Author, (See *Vallisnerius de l' Origine de Vermi, &c. pag. 5, 6.*) “ Insecta ipsa quorum ortus causæ æquivocæ, (ut eam
“ vocant scholæ) putredini nempe, acceptus antea referabatur,
“ ex ovis, vermiculorum forma,
“ primo prodire, ac tandem mira metamorphosi, alarum remigio, cœlos petere, apud omnes in confesso est. Verum
“ conspicua hæc doctrina tenebris offundi incipiet si viri
“ Docti, de Insectis intra homi-
“ nem

“ nem aliave animantia, occur-
 “ rentibus differentes, quibus o-
 “ vis hæc nascantur non determi-
 “ nent. Satis esse putant, si his
 “ terris omnia ovorum, cum vi-
 “ sibilium tum invisibilium plena
 “ esse affirmant, quæ, cum ali-
 “ mentis imo aere ipso, in quo
 “ volitant insecti hauriamus.”

Now supposing from your own
 Words, these contagious Particles
 are drawn in with the Air we
 breath, as no doubt they are;
 they could not fix their Maligni-
 ty upon the Stomach, or convey
 it so immediately to the Blood,
 to make that Havock and De-
 struction in so short a Time upon
 the vital Parts, were there not some
 latent Seeds of the same malig-
 nant Nature inherent in the Bo-
 dy before ; which whether they
 proceed from a Verminous, or what
 other Principle, I leave to your

more accurate Decifion. But that Difeafes have in them fome fuch Influence or Magnetick-like Attraction, feems to me plain from fome Hereditary ones that are propagated from Father to Son, and which lie a long time unfeen, unfelt, and clofely couch'd within the Bed of Nature ; that is, are lock'd up in the Vifcidities of the Blood, *Lympha Saliva*, or other Juices of the Body, and at laft break out according to the Force and Power of the active Principle ; agreeable to your own Notions, fupposing the *Matter of Contagion to be an active Substance, in the Nature of Salt* ; elfe how is it poffible to conceive, that the Small Pox fhould be Latent Twenty or Forty Years, or communicate it felf at the Difance of Fifty or an Hundred Miles, from the many Inftances we have of Perfons of the fame Family and Blood, who have
been

been seized with the same Distemper, much about the same Time, without the Knowledge one of the other ; this is frequent in Families, and therefore must be communicated either by Sympathy, as Sir *Kennel Digby* once taught, or else some *Magnetick Effluvia* in the Air, which are capable of being attracted at such a Distance. I must carry this a little farther, to be able to account for the Force of Imagination, which is so often met with in the *Small Pox*.

The very Thoughts of an approaching Mischief will of a sudden, cause such a stupendious *Metamorphosis*, that by too quick an Influx of the Spirits rushing in upon the Brain, or the Blood setting the Heart, as the Millers say by their Wheels, a back Water, turns all Topsy-turvy in the Body. A groundless Fright will bring that to

a real Existence, which otherwise would never have been : witness the strange Productions of Fancy in breeding Women ; and it is too apparent in this Case, when a timorous Person hears a Relation of a malignant *Small Pox* or *Plague*, and the terrible Symptoms attending them, he immediately forms to himself a perfect Idea of that Disease, which rouses in his Blood a malignant Ferment or contagious Seed, which seizes on the vital Spirit, and there the Conflict is begun and carried on, till one or the other conquers.

We eat and drink and destroy our selves : Do we not exactly *Patrizare*, that is, follow our Father's Vices? For Externals do not simply, or of themselves, contaminate us, but 'tis the Domestick Enemy within, a broken Constitution and an ill Habit of Body ; by which means
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the ambient Air and Diet hath such Influence or Effect upon us, that we are forced to court them, in order to support this brittle Frame. The contagious Atoms that are diffus'd through the Air, and are wafted up and down with every Blast in Pestilential Seasons, and infected Places, tho' slightly entering into the Body unfelt, unseen, cannot of themselves make the *Plague*, unless the Constitution of the Body happens to favour the Infection; which, with humble deference to your learned Judgment and Opinion, is quite opposite to your Assertion; which I think Experience and Example will quite throw to the Ground. You say, *That when the Constitution of the Air happens to favour Infection, it rages there with great Violence.* If you mean by the Constitution of the Air, the Constitution of the Air upon

upon human Bodies, we mean the same thing : If you mean the Infection of the Air ; then, I say, the Constitution of the Body will resist the Infection of the Air, as is evident from so many *English* and other *European* People, who are yearly in *Grand Cairo*, in Pestilential Times, without receiving Infection ; or if any of them are seized, they make very slight of it. See *Pornet's History of Drugs*. But this is confirmed by all merchantile People, that trade to those Parts : If this be so, as the Fact is, I wonder why you insist so strongly upon Goods being open'd, and expos'd as much as may be, to the fresh Air, and performing Quarentine, which will be so detrimental to the Merchant, and the Ruin of the Trade ; when your Assertion is but a bare Say-so, viz. *That the contagious Matter lodg'd in*
Goods

Goods of a loose and soft Texture, which being pack'd up and carried into other Countries, let out when open'd the imprisoned Seeds of Contagion: Restat ad probandum.

What I have said of the Constitution of the Body being the greatest Enemy to, or best Preservative against Infection, will be supported by the Methods made use of by the most sagacious Practicers of Physick in pestilential Times; wherefore, in general, they encouraged and kept up the natural Strength and Tone of the Parts; purified the ambient Air; prevented all Sorts of irregular Ferments; fortified the Stomach; encouraged the Equality and Freedom of the Pulse; mortified the *Virus*; expell'd the morbid Matter; promoted the Secretions of the Body, and disposed it to a continual Perspiration. Among the Learned of those Times,

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some ran into Notions of magnetick Attractions, as appears from their Opinion of the Use of Amber, taken from *Van Helmont* ; who says, *Nil sane Stomacho intestinis, Nervis, imo & Cerebro est gratius succino*. There's nothing more grateful to the Stomach, Bowels, Nerves, and Brain, than *Amber*. I beg Pardon for mentioning any Thing that is practical to a Gentleman, who is Master of so large a Field ; I only did it to shew they had an Opinion that the Malignity of the Air was to be attracted by the *magnetick* Power of *Amber*.

I beg the Favour of you, *Sir*, in your next Edition, that you wou'd be pleas'd to give some further Satisfaction, out of Regard to the *Turkey* Trade, why Cotton, imported from thence, shou'd, at all Times, be kept in *Quarentine*, notwithstanding no Mischiefs, you your
self

self say, has been felt from it, by the Ship's Company, hitherto ; and no *Infection* has ever been proved received from it, in this Island, at any Time: It's hitherto but a bare Supposition, and is as strong against Bales of *Coffee*, and other Goods, received indifferently by all Nations (especially in the *Mediterranean*) from *Turkey*, even in *pestilential* Seasons, without deriving any Contagion to the People trading in those Goods. This is a Matter of great Importance and requires your utmost Consideration ; for a rash Judgment may prove of fatal Consequence, either to the Trade or Inhabitants of *Great Britain*.

I am, SIR,

With all Respect,

Your most Obedient,

Humble Servant,

J. B R O W N E.



A Practical
T R E A T I S E
O F T H E
P L A G U E.

Of the *Name, Nature, and Cause*
of the P L A G U E.



THE *Plague* is a contagious Venom, or subtle Poison, generated within the Body, or communicated from without ; being of a malignant epidemical Nature, that suddenly assaults the vital Strength and Spirits of Mankind, in all Ages of Life ; therein putting

ting him in the utmost Terror and Apprehension of Death.

This pestilential *Virus*, propagated either by the Air, Diet, infected Goods, Houses, or Conversation with diseased Persons, and, lastly, by Diseases which are the Causes of other Diseases, is either a verminous Contagion, or noisome Exhalation contain'd in the Air, taking their Original from putrid Bodies, excited to Fermentation; and so rarify'd and open'd by the ambient Air, whereby the virulent Atoms expire, and are drawn in by the Lungs; or else, being pent up for a short Time, break out, and suffocate the vital Spirits, as flaming Brimstone does a living Insect.

This material virulent Substance, which is endowed with exceeding subtle Parts, hath free Passage thro' the Pores of the Body, which are open both for Admission and Emission of the minute Particles of Matter, which pass thro' by Means of the Excretions and Secretions that are either friendly or hostile to Nature. Now Sympathy and Antipathy, tho'

tho' not so easy to explain, are evidently manifest in this Contagion ; for whatsoever is congruous and consistent with another Body, easily and readily unites with the same Body ; what is disproportion'd to it, is rejected, and cannot unite.

Thus there is a continual Concourse with Matter, like to Matter : Water, in an Instant, unites with Water, not so readily with what is heterogenous to it self. How quickly do the many Globules of *Mercury* co-incide and become One, making a larger sphærical Body ? How wondrous fertile some Lands appear, by being dung'd with Manure, that is agreeable to their Condition ? How greedily the Air imbibes any Body, or Parts of Matter, attenuated to such a Degree, that they seem, as it were, to be converted to the same Identity.

The Elements are, in their own Nature, simple, and stable, and never capable of undergoing an alternate Vicissitude and Change of one into another ; so that (according to Mechanick Demonstration

monstration) it is plain that there is not one Grain, more or less, either of Air or Water, since the first Moment of the Creation.

'Tis certain the Air is not only a *Separator*, but likewise a Disperfer and Collector of all tangible Bodies whatsoever; infomuch, that the more it approaches nearer to any Thing, the more it breaks into atomical Parts, according to its own Constitution, and the Disposition of that Matter it furrounds. Now, the Air being ready, according as it is qualify'd for Dilatation and Contraction, and as it is thus modify'd, so it penetrates as far as there is the least Passage, insensibly carrying off whatsoever is capable to be volatilized; hence all Concretes (that have the least Humidity) continually expire, sending out various Emanations suitable to the Matter from whence they are derived; which, acquiring an inward Ferment, or being divided into invisible Parts, by Torture of Fire, are all greedily suck'd up into the spongy Spaces, or magnetick Influence of the Air; which,

which, being liable to many Changes, consequently produces healthy or sickly Constitutions ; Diseases malignant or mild, acute or cronick, gentle or raging.

Now, when the ambient Air shall be crowded full of infinite small Particles, disagreeing to our Nature, in their *Figure, Crasis, Power, Texture* and *Proportion*, making incessantly a strong Impulse upon the vital Spirits; how is it possible but they must be affected, alter'd, and at length overcome; since from the Retarding, or an inordinate State of Excretion, arises a Chilness or Trembling of the Body, Pains about the Heart, and Deliriums which are discover'd by the spasmodick Strictures of the little Fibres? If a Putrefaction or Virus follows, it is attended with a sudden Decay of Strength, joined to a Loss of Spirits, Faintness, Feebleness of Pulse, Urine without natural Sediment, Perturbation of Mind, Want of Sleep and Rest; otherwise, there happens Vomittings, *Diarrheas, Inflammations* about the

E Throat,

Throat, Deliriums and Palpitation of the Heart, &c.

Now, the venomous antecedent Matter, which occasions the Plague, derives its Origine immediately, either from within the Body, or without, as laid down at the first. Within the Circumference of the Skin, an absolute pestilential Poison is sometimes generated, which being incubated by the external Heat, and fermented by several outward Accidents, is at last maturated into this kind of virulent Matter that occasions the Plague; for, undoubtedly, were a Man separated from all Society, and lived in never so wholesome an Air, yet such a pestilential Seed may spring up in the Body, capable of producing the same Effect, which an extraneous Matter occurring frequently doth; that is, receiving the Infection without Commerce, Contact, or Conversation with Persons Infected.

Neither ought this to seem strange, since all Things in the Body, that degenerate from their native Purity, and become

come stagnant, are either in some short Time excluded thence, or else are rectified, and, if possible, reduced to their pristine State ; and if Nature cannot perform this, then, by little and little, they are insensibly work'd up to what they are capable of. Hence, by the Power of different Ferments, arises distinct Diseases congruous to the first Principles they were endu'd withal: Thus Apoplexies, Epilepsies, Vertigoes, Lethargies, Madness, and malignant Fevers, take their Original.

The outward antecedent Matter ariseth from some minute venomous Particles, or Effluvias of various Bodies, either received in at the Stomach, or immediately entering thro' the small Pores of the Skin, where they perform fatal Effects, according to the Capacity of the Receiver ; for it happens sometimes that a pestilential Virus is taken in, and by Virtue of a Robust Constitution forthwith excluded again; so that what would prove detrimental to one Man's Health, little impairs another.

Now the common Road, thro' which this Poison is convey'd, is chiefly the Mouth and Nostrils; Places obvious enough for the Reception of these virulent Atoms: Inspiration and Expiration, so necessary to Life, must needs draw in with the Air, whatsoever is intermix'd therein. This we find in Subterranean Damps, which quickly suffocate Men, if not presently removed into fresh Air, and likewise extinguish burning Lamps and Candles.

We commonly see that a putrid or corrupted Body, being congeal'd by Frosts, emits no further any Odour, tho' the Heat and Warmth of the ambient Air would quickly extract a noisome Exhalation; we find cold Seasons so efficacious in restraining this pestilential Disease, that seldom any great Mortality hath reigned among us in a very sharp Winter, but what hath been curb'd by nipping Frosts.

The Health of Man is not only endanger'd by the corrupted Exhalation of inanimate Things, that make a strong Im-

Impression on our Spirits, by weakning the Tone of the Parts, and debilitating their Vigour ; but likewise the Respiration and *Effluvias* of various Sorts of Animals do often prove obnoxious to our Natures ; so one Man's Body will easily infect another's, by Reason of a Natural Affinity between one and the other ; for there is an easy Transmigration of virulent Particles from Body to Body, where there is a proper Magnetism : And, doubtless, there are some Men and Women, seemingly healthful, whose Breathings and *Effluvias* are very pernicious to others Constitutions, tho' not sensibly to be discover'd. Since then we are beset on every Side with invisible Spirits ; I mean the more refined subtle Particles of Air ; how is it possible that Materials shou'd be wanting for the forming contagious, and other innumerable Diseases ?

There are diverse Diseases that are infectious, tho' not so deadly as the Plague ; as the Black and Yellow Jaundice, Itch, Leprosy, Measles, Small-Pox,

Pox, Venereal Lues, all which infect by Touch ; nay, putrid Lungs have convey'd their Corruption to others by the Breath : But the Plague infects by all these Ways ; for there is a subtle Venom that, being very thin and spirituous, joins it self to the Air, and, piercing the Body, mixes with the Fluids thereof.

For Proof of this, we see that Cloaths, Household-Goods, nay, Walls of Chambers, will a long Time retain any strong Scent giv'n : Now Scents are certain subtle *Effluvias* of Matter, distributed into the Air, which is the Vehicle wherein they are convey'd ; so the pestilential Infection seizes Human Bodies, and leaves Contagion on inanimate Things ; for Cloaths, and all Sorts of Goods, not only receive Infection, but infect others. *Fracastorius* tells us of a Furr'd-Gown that was the Death of 25 Men in *Verona*, Anno 1511. who, one after another, wore it, thinking still they had aired it sufficiently : And, if *Alexander Benedictus* may be believ'd,
Feather.

Feather-Beds, will keep the Contagion many Years ; undoubtedly, without proper Care be taken to cure them of the Infection.

Of the Signs, or Fore-runners, from whence we may apprehend or dread a PLAGUE ; according to Ludovicus Gardinius, and Eberhardus Gockelius.

THE *Plague* is to be fear'd if the following Signs appear. 1st, If Spring and Summer have been too moist ; if Winter and Autumn too wet, and not cold enough. 2d, If the South Winds have blown without Tempests or Hurricanes. 3d, If the Air, for some Time together, changes often in a Day, and is sometimes hot, and then cold, now cloudy, and then clear ; yet the Clouds hang low, the Air is sultry, and the Heavens threaten Rain without any falling. 4th, If there be an extravagant Quantity of stinking Atoms, Insects, or Animals, as of Flies, Frogs, Snakes, Locusts,

Locusts, &c. or if Birds retreat to solitary Places, and forsake their Nests. 5. If Famine happen, or there be too great Plenty of corrupted Meats ; or, if a Nation be afflicted with Troubles and Poverty, that may throw them into a Consternation ; or if Wars have been among them, whereby, from Battles, or Sieges, their Dead lie unbury'd. 6th, If unusual Fires or Comets have appear'd in the Sky ; if Chasms or uncommon Meteors, falling Stars, and the like, have been seen in the Air ; since these make great Changes in natural Bodies, they likewise dispose the Air and render it capable of receiving pestilential Impressions. 7th, If *Small Pox*, putrid Fevers, and such like contagious Diseases reign ; since from hence the Air is often corrupted, we may very well judge them to be the Seminaries of Contagion. 8th, If the *Plague* rages in a neighbouring Country, we are to be fearful of its spreading Influence ; since it is easy to be communicated either by Air,
in-

infected Goods or Persons. 9. But the Signs are certain that the Contagion is amongst us, if the following Symptoms appear.

Of the Signs or Symptoms of Persons infected with the P L A G U E, from the same Authors.

THE Signs of Infection are General and Particular ; the first are, when many Persons die without any apparent Cause or Sicknefs, much about the same Time, and in the same Condition, being affected with an equal Weight or Degree of Symptoms.

The particular or special Signs of Infection, are Horror and Coldnefs in the outward Parts, and a preternatural Heat within ; and this chiefly upon the first Accession. 2. An unquenchable Thirst. 3. An Oppression or Heavinefs of the whole Body, and Lassitude of the Limbs, with a total Loss of Strength. 4. Head-Ach. 5. Sleep and immoderate Waking. 6. De-

6. Delirium and Dimness of Sight. 8. Asthma. 9. Pain about the Heart, and a Profusion of cold damp Sweats. 10. Syncope and Delirium. 11. A pointed Pain upon the Heart and Sides. 12. Frequent Vomitings and Nausea or Abhorrence of Food. 13. The Pulse either small, languid, and irregular, or else swift, furious, and intense, or otherwise attended with large Intermissions. 14. The Urine thick and muddy, and of an ill Scent. 15. The Stools fetid, frothy, often black and thin. 16. A strinking Breath, hoarseness of Voice, difficult Breathing, with a Bitterness in the Throat or Mouth. 17. In melancholy Constitutions, the Belly is swell'd and puff'd up, as in a Tympany: In many, Blood flows from the Nostrils, sometimes by Stool, from the Bladder and Mouth. 18. Cold stinking Sweats will appear in some; but this is not always found.



Signs upon the Body of an infected Person.

THESE Signs after Death, certainly shew any Person to be infected with the *Plague*, viz. Buboes in any Part of the Body, Carbuncles or Blotches, and pestilential Wheales. The Face appears much more horrid than that of other dead Bodies.

The Body is not stiff, as it is usual to be in others, but soft and yielding; that is, as lank as a Rag dip'd in Water. If the Stench and Putrefaction be great, it presently flows out of the Body, which in others it will not do of some Days.

The Prognostick Signs of Health or Death.

THE Plague in its self is much more deadly or *mortal*, than it can be call'd *salutary*: As to the Signs of the last, they are, 1. A firm or strong Con-

stitution, vigorous enough to expel the *Virus* by copious Sweats ; whence Boils, Pustles, and Spots, are thrown out.

2. A Retention of such Medicines as are given, as well as that of Meat and Drink. 3. Buboes breaking out at the greatest Distance from the Heart. 4. A Constancy or Resolution of Mind, not interrupted with a Delirium or Giddiness. 5. Vigorous Appetite. 6. An equal or regular Heat of Body. 7. Easy Breathing. 8. Natural Rest. 9. Free Pulse. 10. Moist Tongue. But there is no trust to be given to these promising Symptoms, till the Disease is quite master'd. On the contrary, we are not to despair in the most dreadful Appearances, as these are which follow. As 1. A profuse Flux of Blood from the Mouth, Nose, Bladder, Womb, Fundament. And, 2. An irregular Flux of Nature in Women, upon the Infection. 3. Continual vomiting of Medicines given, as well as of Meat and Drink. 4. No appearance of a Bubo, or else a sudden Disappearance and Disappointment in

in the Maturation or bringing it to a Head. 5. Minute black or green Carbuncles, which, when open'd, instead of Matter or Pus, discharge a Froth, or otherwise appearing dry, are of a livid Colour, and dry at the Bottom. 6. It is a deadly Sign for Carbuncles to be seated under the Chin, towards the Palate; they are also Mortal, that are found upon the Throat, Stomach or Region of the Breast; as also *Buboes* behind the Ears, by reason of their Situation, are of dangerous Consequence. 7. Deadly Sleep. 8. A swell'd Belly, with *Delirium*. 9. The Body tinged with a blew Dye. 10. Black, livid, blewish Spots or Pustles, striking inwards from the Skin to the Heart. 11. Troublesome Dreams. 12. The Colour of the *Buboes* being at first livid and lead-colour'd, of a reddish Brown from Black. 13. A casting out of black bilious Matter. 14. Costiveness, or else a Diarrhea or Bloody-Flux. 15. Dark heavy Urine, void of all Sediment, or an Excretion thereof, with great Difficulty. 16. An Inflam-

tion

tion of the Liver, a sore Throat, Pleurifies or Phrenzy. 17. A swelling or fulness about the Heart, with great Pulsation and Pain in the Bowels.

The Signs which threaten and denote nothing but Death, are a frightful Countenance of the Diseased, loss of Sight and Memory, a gaping Mouth, falling Jaws, little trembling Pulse, a shaking and coldness of the Hands and Feet, a livid Nose with beating of the Nostrils; frequent sinking of the Heart, cold Sweats and stinking Breath: This is the Height of the Contagion, of which the Poet says thus :

*Triste supercilium furiosus vultus & acer
Compressæ nares, nasi primoris acumen
Tenue cavati oculi, cava tempora, frigida
pellis
Duraq; in ore jacens rectum frons tenta
meabat.*



*Of the usual Indications relating to the
Cure of the Plague, and the neces-
sary Precautions in order to pre-
vent it.*

THIS raging Malady, since it is the most deadly of all Diseases, seizing the Heart and Head with so much precipitation, requires the quickest Relief and utmost Skill of the intelligent Physician, who is to use all his Art and medical Artillery to vanquish such a powerful Foe : For which end the use of Medicines, which correct the Malignity, and open the Obstructions of the Body, is to be consulted, as likewise those which quiet and allay the Effervescence and Fermentation of the Blood and Humours : For the Heart and vital Parts being principally attack'd, particular Regard must be had for their speedy and effectual Relief.

Now, as we have said already, that Contagion is produced by an efficient Cause ;

Cause ; which efficient Cause is either a verminous Putrefaction or pestilential Infection of the Air, which acts internally and externally upon an human Body, either by entring the Pores, or passing the contagious Particles into the Lungs, and so communicating its deadly Ferment to the Blood and Humours : Therefore, since Mankind is the Subject of this mortal Disease, and consequently the Matter in which it is to act, we cannot be too much upon our Guard, to prevent the least Approach of this Enemy ; or if enter'd by Stealth, to drive him out with all the Caution and Expedition imaginable.

Since the external Cause of the *Plague* is demonstrated to proceed from the external Air, infected with pestilential Vapours, or verminous Exhalations ; we are to enquire by what Means this contagious Air is to be purified, or the fatal Effects thereof prevented. First then, in the coolest Seasons of the Night or Day, we are to cleanse and free the Streets, Ditches, and Highways, from
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all Dirt, Filth and Nastiness; to bury all Carcasses or dead Bodies deep in the Earth; otherwise to burn them: To take Care that all Rags, any corrupted Meat, or the like, be removed at a Distance, or else committed to the Flames; that every Thing be kept neat and clean, as well without Doors as within; and that no Water be permitted to stand long in Cisterns, Tubs, or other Vessels.

All Commerce with infected Places must be prohibited; and not only their Persons, but Goods, at that Time, ought to perform Quarantine: The Conversation and Communication with infected Persons, or those who come from Places infected, must be strictly avoided and forbid: And what appears of the greatest Consequence to large Towns and Cities, when visited, is, that the strictest Guard be kept upon Dogs, and Cats, from wandring from one House to another; especially the latter, which ought to be cag'd, or otherwise secured, because they are apt to run wide from Home; and tho' they enter not infected Houses, they may have Conversation with Cats that come from such, and so easily communicate the Contagion to the whole Family; which will soon, by this Way, propagate it self, where-ever
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these Creatures come, which, in some Families, are very familiar, and lie upon Beds, and Ladies Laps ; whence the Disease will be readily convey'd to all around 'em.

A good wholesome temperate Air is to be preserved in its Natural State and Condition ; and peculiar Care taken to keep the Houses clean from all Kinds of Vermin, Dust and Cobwebs ; and Utensils and Household-Goods constantly scour'd, wash'd, dry'd, and expos'd to the Air, during the Time that the Sun is above the Horizon.

Whatever Dr. *Mead* has urged against Fires being made in the Streets, built upon Dr. *Hodges de Peste*, the Experience of all Ages, and all Authorities, are against him ; but had that not been so, there is the strongest Reason in Nature for Fire in pestilential Times, especially Coal-Fires, by Reason of the great Quantities of Amber contain'd in that Body, as our Modern Chymists know to their great Gain, and Abundance of Bituminous Earth, both which are great Enemies to Contagion, and Destroyers of the malignant *Virus*, whether it be a verminous, or any other kind of corrupted Exhalation ; for as Fires dissipate the collected Atoms in pestilential Airs, by rari-
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fyng and attenuating the groſſer Particles of the Atmosphere, within the Compaſs of their Activity; ſo the Experience, both of Soldiers and Seamen, will juſtify, that firing of Guns, eſpecially Cannon, will purify the Air, both by Concuffion, as well as by its conſtituent Parts of Sulphur and Niter, as it is frequently uſed in Camps for that Purpoſe; as was practiſed when that malignant Diſtemper fell upon their Horſes in *Flanders*, and ſwept off ſo many; and is, at this Day, by the Sailors, in the Southern Parts of the World, when the Clouds hang ſo low, that they are ready to be ſuffocated on Ship-board, and ſmell as it were the Stench of *Brimſtone*; or elſe they are in fear of a *Spout*, as they call it.

Befides the Uſe of *Coal-Fires* publickly in the Streets, I would adviſe a conſtant (tho' moderate) Uſe of Fires in every Lodging Room, after Sun-ſet; for the Damps of the Air are greater in the Nights, during the Summer Season, than in Winter, by Reaſon of greater Exhalations that are carry'd up into the Air, and let fall in Dews, moſt frequently in the Night-time, excepting now and then where no Dew falls, and then Rain generally ſucceeds the following Day.

The next Thing to be taken Care of is, either Cloaths, or Merchandise: As to the latter, Dr. *Mead* still (from the Authority of *Hodges*) charges upon Cotton, imported from *Turkey*; but *Gockelius* says, that in that very Year 1665, which Dr. *Hodges* mentions, some Soldiers returning then from *Hungary*, having been in the *Turkish* Wars, spread the Infection about *Ulm* and *Ausburg*, where he then lived; and, besides the *Plague*, they brought along with them the *Hungarian*, and other malignant Fevers, which diffus'd themselves around the Neighbourhood, whereof many died. See *Gockelius de Peste*, p. 25.

Among the Merchandizes that come from Abroad, the Doctor has well observ'd the greatest Danger is from such Goods as are apt to return (and I think it ought to have been receive too) Infection; such as *Cotton*, *Hemp*, and *Flax*; *Paper*, or *Books*; *Silk* of all Sorts; *Linen*, *Wool*, *Feathers*, *Hair*, and all Kinds of *Skins*, and *Leather*; as *Kercher* observes in a *Plague* at *Alcair*, in *Egypt*, where all the *Curriers*, *Shoemakers*, and *Cobblers* were infected with that Disease, which they received from *Leather*.

The last Thing, is Letters coming from infected Places, which must be purify'd

rify'd by Fumigations made over the Fire; tho' this is contrary to Dr. *Mead's* Opinion, who can see no Reason to expect any Virtue to destroy the Matter of Infection from Fumes of hot Things, as *Frankincense*, *Storax*, &c. *Ludovicus Cardinius* advises to fumigate Letters with hot Things, and Aromatics; and also to fume Houses, and Bed-Chambers, with *Sulphur*, *Frankincense*, *Common Salt*, and *Pitch*; nay, to make a Smoak or Smother of Hay; or of Horns and old Leather; setting the Windows open, whereby the infected Air is driven out with the Fume, especially that of *Sulphur*: The Scent is indeed ungrateful, but not fetid or putrid, but, on the contrary, safe and salutary.

Valescus de Taranta in *Phylonio*, Cap. III. Lib. VII. speaks also a Word on the same Side; All stinking Things, says he, are to be avoided; and all good agreeable Scents encouraged; but, if you say that those hot Steems arising from Aromatics are Vehicles to carry the corrupted Air to the Heart, it is really otherwise, because, without these, the pestilential Air would enter the vital Parts; because, whether we will, or no, we inspire and attract the Air; therefore ought to take Care that it be freed from

from noxious Particles, by Reason the finer Aromatick Parts are subtilized by the Fire, and made fit to dissipate the malignant Qualities of the corrupted Air.

I shall not trouble my Reader with the usual or customary Provision the Magistrate makes in contagious Times; but only observe, that all publick Assemblies, disorderly Livings, Tippling in Brandy-Shops, and Bagnios, are forbid, lest the Contagion hereby be communicated from one to the other; and likewise all those who are employ'd about the Sick, are order'd to avoid Communication with sound Persons, lest, by coming into Company, or even in their Sight, they should affect the Imagination with too strong Impressions: But, *he that dwelleth in the secret Place of the most High, shall abide under the Shadow of the Almighty: Surely he shall deliver thee from the Snare of the Fowler, and from the noisome Pestilence: Thou shalt not be afraid for the Terror by Night; nor for the Arrow that flieth by Day: Nor for the Pestilence that walketh in Darkness; nor for the Plague that walketh at Noon-day.*

Of Preservatives, or such Things as have Power, and are most proper, to prevent the Infection in pestilential Times.

THE first Thing advised by the most Learned Physicians, in the Two great Plagues before that of 1665, the Principal of which, were Sir *Theodore Mayerne*, *Hammon*, *Butler*, *Atkins* and *Harvey*, was the Correction of the Air; and these, with their Fellow Collegues, were all of Opinion that Bonfires should be often made in the Streets, and that some time the Tower Ordinance might be shot off; as also that there should be good Fires kept in and about the visited Houses, and those of their Neighbours. The same Orders were observed, as directed by the Learned, in the Plague of 1665. The single Instance *Hodges de Peste* brings of making Fires for Three Nights together in the Streets; after which, says he, there died, in One Night following, no less than Four Thousand; he does not relate whether it was the Night immediately following, or what other Night; but because some one Night after, such a large Number died,

died, which is no ways conlusive that the Fire was the Cause thereof, againſt the Experience of all before and ſince that Time; yet Dr. *Mead* ſays this is *more than ſufficient to diſcourage any further Attempts of this Nature*. But, in order to correct the Air yet more; take Roſe-mary dry'd, or Juniper, Bay-Leaves or Frankincenſe, caſt the ſame on a Chaffing-Diſh of Coals, and make a Fume or Smoak thereof; alſo make the Fires rather in Stoves to move about the Chamber, than in Chimneys.

Drs. Butler and Atkins's Method to Fume the Houſe.

Take a Quantity of ſtrong Vinegar, and put a little Roſe-water, and a good deal of Roſemary thereto; put them all in a Baſon; then take Five or Six Flint Stones heated red hot, caſt them into the Vinegar, and let the Fumes be convey'd over all the Houſe. Likewise ſcent it with Rue, Gentian, Angelica, Juniper, Lavender, Roſemary, Mint dry'd and burnt over the Fire; or elſe firſt ſteep'd in Wine Vinegar, and then burnt. Or ſcent the Houſe and all the Furniture with quick Lime ſlack'd in Vinegar. Or burn *Pitch, Tar, Roſin* or *Frankincenſe*.

Another way to Perfume the House or Bed-chamber. Take Wood of Aloes ʒij. Cloves, ʒfs. Juniper and Bay Berries, of each ʒifs. Sage, Rosemary and Marjoram, of each two handfuls, make a gross Powder, which burn either in your Bed-chamber, or else-where in the House.

Scented Candles to burn in any part of the House, from Dr. Bate.

Take Gum Labdanum ʒij. Storax, Benjamin, Olibanum, Gum Juniper, Myrrh, Cloves and Amber, of each half an Ounce, make into a Mass for Candles, with a Pound of Bees Wax.

Dr. Goddard's Liquid Fumes or Vapours, were made of Orange Peels, Cloves, Cinamon, Aloes Wood, Citrine Sanders, Enula Campana Roots, Red Rose Leaves, and a little Camphore, fumed in Vinegar of Roses, in the Bed-chamber, or by the Patient's Bed-side, by means of a Chaffing Dish of Coals, or a Lamp burning with Spirit of Wine camphorated, or Spirit of Lavender for Persons of Distinction.

Another for common Use.

Take an Ounce of Methridate or Venice Treacle, boil it over a common Fire in Vinegar, together with Bay and Juni-

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per Berries, Elicampana Roots, Mint, sweet Marjoram, Rosemary, and the like fragrant Herbs or Woods, and snuff up the Vapour thereof once or twice a Day, as Occasion demands.

The fragrant Odours which refresh the Spirits, without the Assistance of Fire, are generally useful Abroad, as well as at Home, especially such as expel the contagious *Virus*, and purify the infected Air; such are Roses, Violets, and other fragrant Flowers: besides which, are Sanders, Camphore, Orrice Roots, Elicampana, Cloves, Cinamon, Mace, Nutmegs, Lavender, Rosemary, Thyme, Hyssop, Origanum, Sage, Rue, Marjoram, Bay, Myrrh, Labdanum, Storax, Orange and Lemon Peels, Juniper, Cypress, Saffron, Calamus Aromaticus, Vinegar, generous noble Wines, Rose-water, Treacle-water, &c.

A liquid Snuff from Ludovicus Gardinius.

Take Treacle and Mithridate, of each 3i. Camphore half; the Leaves of Rue, Wormwood, Rosemary and Lavender, of each Two Drams; infuse them in a Pint of White-wine Vinegar Twenty Four Hours; use this Liquor with a Sponge as often as you please.

Or,

Or, the following Powder to put in Bags, or strew upon your Hair, Wigs and Cloaths.

Take Citrine Sanders, Lemon and Orange Peels, Cloves and Orrice Roots, of each an Ounce, Benjamin half an Ounce, Camphore two Drams, Amber three Drams, make into a fine Powder.

Other Perfumes to carry about, as directed by Butler, Bate, Wetherburn, and Regemorterus.

Take Roots of Angelica 3ij. Rue and Wormwood, of each one Dram, Labdanum one Dram and a half, Camphore ten Grains, steep in Wine Vinegar; put this with a Spunge into a silver or wooden Box to smell to, or have a Juniper Box made with Holes in it.

It is useful for such as go Abroad to carry Rue, Angelica, or Zedoary in their Hands to smell to; or they may chew a little, or stop their Nostrils with green Rue or Tobacco Leaves of the largest Cut. It is of ill Consequence to be over fearful, and the highest Presumption to be too daring.

Or, else take Rue one handful, stamp it in a Mortar; put thereto Wine Vinegar enough to moisten it, mix them well, then strain out the Juice; wet either a

piece of Spunge or a Toast of brown Bread therewith, to carry about, with you.

The following Recipe was communicated to me by Monsieur Mahew, a French Painter, by the Use of which he preserved himself from the Contagion, during Four several Plagues, in which he lived, and painted dead Bodies that were infected, viz. Caen in Normandy, Bourdeaux in Gascony, Paris, and the last Plague in London.

Take Galingal sliced 3ij. infuse this in a Quart of White-Wine Vinegar for three Days ; of this take four Ounces every Morning, in which steep a Toast of Bread, and eat it ; snuff some of the Vinegar up your Nostrils, and wash your Hands and Temples with the rest. About his Neck and Arms, he wore Amulets of Amber, Camphore and Euphorbium sewed in Bags, and bound about the Parts.

Pomanders in the Nature of Amulets, directed by the College of Physicians. 1636.

Take Angelica, Rue, Zedoary, of each 3ij. Myrrh 3ij. Camphore gr. vi. Wax and Labdanum, of each 3ij. more or less, as necessary for the Composition of

a Ball or Balls to carry about, A Hole may be easily made therein, that it may be wore about the Neck, or elsewhere.

Another for the Richer Sort.

Take Citron Peel, Angelica Seeds, Zedoary, red Rose Leaves, of each ʒss. Yellow Sanders, Aloes Wood an. ʒi. Nutmegs ʒiv. Storax, Benjamin, of each ʒi. Camphore gr. vi. Labdanum ʒiij. Gum Tragacanth dissolved in Rose-water enough to form it. To this add of Spirit of Roses six Drops, (or the same Quantity of Bergamot) put this in a Box, or wear it about the Neck.

Dr. Goddard's Amulet to be wore at the Pit of the Stomach.

Take white Dictamny, Saffron and Camphore, of each a Dram, Gum Labdanum half a Dram, Balsam of Peru, and Oil of Nutmegs, of each six Drops; mix and put them into a Bag to hang round the Neck with a String. Likewise Amber Necklaces, and Bracelets of the same, were advised by the most Learned, and wore with good Success in all the Three last *Plagues*.

Dr. Scarburgh's scented Balls for the Plague.

Take Nutmegs, Mace, Sassafras, Cloves, Aloes Wood, Storax, of each ʒi. Benjamin ʒfs. Musk ʒi. Ambergrease ʒfs. make a Ball or Balls to be wore about the Neck.

For Summer.

Take Sage, Rosemary and red Rose Flowers, of each ʒi. Yellow Sanders ʒfs. dried Lemon-Peel ʒij. Ambergrease six Grains, with Rose-water and Gum Tragacanth; make a Mass. So sweet scented Soaps were recommended as generally useful to wash the Hands and Face, Feet and Legs in Rose-water, Vinegar or good Wine, that the Excretions of the Body might yield a grateful, pleasing, and refreshing Odour.

Herbs, Rushes, and Boughs that are necessary to be disposed about the House and Bed-chamber, which yield refreshing Scents, and contribute much towards purifying the Air, and resisting the Infection. Of this kind are all sorts of Rushes and Water-Flags, Mint, Balm, Camomil Grass, Hyssop, Thyme, Penny-royal, Rue, Wormwood, Southern-wood, Tansy Costmary, Lime-tree, Oak, Beech, Walnut, Poplar, Ash, Willow, &c.

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Likewise Linen Cloths may be dip'd in Vinegar and any sweet scented Water, as Tansey, Angelica, &c. and these Cloths to be hung upon the Walls, or upon Cords in Bed-chambers, being every Day wash'd and dip'd afresh, as before; by which means they will attract and imbibe the *Virus* which floats in pestilential Airs; especially, if after washing and dipping, as before, the said Cloths or Sheets hang a little before a brisk Coal Fire till they smoak, their Power of Attraction will be much the greater: By this means the feminary Influence of the *Plague* is extinguished, says *Fracastorius*. See *L. 3. de Curatione Morb. Contag.*

A frequent Change of Cloaths, and a careful drying or airing of them Abroad, with whisking or cleansing of them from all Filth and Dust, which may harbour Infection, is of great Use and Advantage; as it is likewise to keep the Windows open as soon as the Sun rises till he sets, especially to the North and East; for the cold Blasts from the North temper the Malignity of Pestilential Airs.

Dr. Glisson, Sir Tho. Millington, Dr. Charlton, and other learned Physicians, I find, in the last *Plague*, recommended Fumigations to be made of Arsenick

℥ij. and Sulphur 3 fs. especially in Places infected; but this was done in the empty Rooms, which were afterwards fumed with Cloves grossly powder'd ℥i, Rose-Water ℥iij, Vinegar ℥ij, burned in a Pan of Coals; or else by casting a Pint of White Wine-Vinegar upon the Fire, in the Midst of the Bed-Chamber.

How the Body is to be fortify'd against the Force of Contagion; and first of Diet.

Let your Meat be always good, sweet and temperate not too moist and flashy, but easy of Digestion, and such as creates good Blood; as Beef, Mutton, Lamb, Chickens, Turkey, Pullet, Capon, Partridge and Pheasant; avoiding all Sea-Fowl, with Duck and Pidgeon; but Venison is good, if fresh, and well roasted, with the Hearts of all Creatures proper to be eat. Let your Sauce consist chiefly of the cool acid and acrid Herbs and Roots, as Sallery, Endive, Lettice, Spinage, Cresses, especially Sorrel, together with Oil, Verjuice, and above all, Lemons and Oranges, which resist Putrification, and cool the intemperate Heat of the Liver and Stomach: Salt Meat and hot Spices must be cautiously used.

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Let your Bread be light, and not too new ; drink but little Malt Drink, and let that be good, pure, and not too much upon the ferment, or over-hop'd ; fine Mead is of excellent Use, and good Wine is an Antidote against all Poisons ; but beware of Excess : See *Celsus de Remedia*, Lib. VIII. Cap. 27. Young hale and strong Constitutions must not be too free with Wine in contagious Times, for fear of Inflammations, which are of the last Consequence in pestilential Cases.

Let none go Abroad Fasting, but every Body eat according to their Custom and Circumstances, as Bread and Butter with Rue, Sage, Sorrel, &c. or a Toast sop'd in Wine or Metheglin. The Custom that prevails now may be of excellent Use, that is, to Break-fast upon *Coffee*, *Bohea Tea*, or *Chocolate*, with Bread and Butter. If you suspect a Child to have the Worms at such a Time, use not Trifles, but order him as in Danger of Infection, that Disease having such a Tendency to Putrefaction, and consequently apt to receive Contagion ; therefore give a Scruple of the following Powder. Take of red Coral ʒi, Lemon-Peel, Roots of Angelica, Tormentil and Rhubarb, of each ʒfs ;
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Coralline Powder ʒi ; make all into a fine Powder, and give the said Quantity in a little Carduus Water, sweeten'd with some Syrup of Succory, with Rhubarb.

In Times of Infection, avoid all windy Things that are produced from the Garden, and such as are subject to sudden Putrefaction, as all Kinds of Pulse, Cabbage, Collyflowers, Sprouts, Melons, Cucumbers, &c. as also a great many Summer Fruits had better be refrain'd, saving Cherries, Currans, Strawberries Rasps, Mulberries, Quinces, and Pomegranates, which may be eaten moderately with good Effect.

Fish in general is bad, and should be seldom eaten ; but the best are Soale, Mullet, Plaife, Flounder, Trout, Gudgeon, Lobster, Cray-fish and Shrimps : Pond-Fish are not good, neither Fish-Sauces made of hot Spices and Anchovy ; but the most plain is the best, as fresh melted Butter, with Lemon, Orange, or Vinegar. Be sure to be temperate in eating either Fish or Flesh, and always rise from Table with an Appetite ; but every Man's Stomach is various, therefore no Rule can be better given than that of *Hypocrates*, Aph. 17. Lib. I. we must submit to Season, Countries and Customs in these Things.

Of

Of Medicines to be made use of, as well for Prevention, as Cure of the PLAGUE.

I shall begin with Emeticks, and shew what Sorts of Vomits were used by the Learned in those Times; and what may be thought proper, where such an Evacuation is required; and as Nature often indicates the Necessity of Vomiting, as where there is a Fulness of Stomach, from eating or drinking, Surfeit, Vomiting without Blood, &c. I shall set down some Forms.

Take, either Vinegar or Oxymel of Squills, two Spoonfuls, Cinamon-Water, with Barley, three Spoonfuls, *Angelus Sala's* Emeticks Syrup, one Spoonful, make a Draught.

Or take half a Dram to a Dram of of Sal of Vitriol, call'd *Gilla Theophrasti*; or three or four Spoonfuls of the Infusion of Crocus Metallorum, call'd the *Emetick Wine*.

Angelus Sala's Emetick Syrup.

Take Glas of Antimony, finely ground, ʒi; Cinamon, Zedoary, Aloes Wood, Yellow-sanders, of each ʒij; Saffron ʒfs, Rose-Vinegar ʒxviiij: Infuse 24 Hours, then filter, and add Sugar dissolved in Rose-water, the

Weight of the Whole, which boil to the Consistence of a Syrup; the Dose is from two Drams to a Child, to an Ounce to a grown Person; but this Method seems too forcible and dangerous in pestilential Contagions, by causing too great a Perturbation and Dejection of Spirits, which occasions too fatal Consequences.

But, I find it was the Method of our *English* Physicians, in those calamitous Circumstances, to give two Ounces of Juice of *Goats-Beard*, call *Tragapogon*, in Bugloss, Scabious, or *Carduus* Water, which had such Success, that, in a little Time after the Vomit, Buboës or Boils would break out; after the Vomit was over, they order'd strong Gravy-Broth to be giv'n, with Lemon-Juice, or that of Garden or Wood-Sorrel: And undoubtedly where the Vomit appears necessary, the Modern Use of *Brasil-Root* we call *Ipecacuana* giv'n from $\mathfrak{Z}i$ to $\mathfrak{Z}ij$, must answer the last Intention either of Physician or Patient, it having so great Power to strengthen the Tone of the Stomach and Bowels, by which Means it might suppress the Vomiting the *Diarrhea*, both which Symptoms are so common to the Plague.

The next Evacuation is Purging, which ought to be skillfully taken, or carefully avoided; tho' it is good for Prevention to keep the Body soluble or reasonably open with gentle Medicines, but if the Infection has seized the Patient, then use proper Suppositaries or Clysters, as requisite; but for Prevention, take Aloes, Myrrh and Saffron, made into Pills, with Juice of Lemon or Pill Ruffi: If the Patient be without a Stool two Days, give a Suppository of Honey and Salt, or a Clyster of the emolient Herbs.

For those who cannot take any Aloe-tick Medicines, or Pills of any Kind, the following Forms are prescribed. Take Lemon-Peel $\mathfrak{z}\text{i}$, Succory, Fennil and Liquorice Roots, of each $\mathfrak{z}\text{ij}$, Polipody of the Oak $\mathfrak{z}\text{ss}$, Anniseed $\mathfrak{z}\text{iss}$, Pæony $\mathfrak{z}\text{s}$, Sorrel-Seed $\mathfrak{z}\text{ss}$, Endive, Betony, Agrimony and Sorrel, of each an Handful; Carduus, Fumitory, of each half, of the Cordial Flowers, of each a pugil, Sena $\mathfrak{z}\text{i}$; Raisons stoned, half, Salt of Tartar $\mathfrak{z}\text{i}$; boil these in two Quarts of Succory Water, to a Consumption of a third Part, and then infuse Rhubarb $\mathfrak{z}\text{iv}$, Agarick $\mathfrak{z}\text{i}$, Mace and Cinamon, of each $\mathfrak{z}\text{i}$; strain off next Morning, and keep for Use.

Of this take ℥iv, Manna ℥vi, Syrup of Pomegranates, or Roses, ℥fs for a Potion.

Or for young Persons, take of the said Infusion ℥iij, Manna, ℥vi, Syrup of Pomegranate or Violets ℥fs, for a Potion.

For an Infant to one of Ten Years old; Take of this Liquor ℥ifs, Manna ℥fs, Syrup of Pomegranate ℥iij, make a Purging Potion. This Method is from *Horstius*, and much used by *Glisson* and *Rudgeley*, in their Time; but this was a general Rule throughout their Practice in pestilential Cases, to use no Evacuation of Vomiting, Purging or Bleeding; after any Irruption of *Boil*, *Blaine*, *Sore*, or *Spots* appeared; because it was the general Opinion, and ought to remain so, that the *contagious Virus*, or Poison, was best expell'd by Sweating.

And first, I shall give you the Method of Sweating for the Plague, by a *French Hermit*, communicated to Sir *Theodore Mayerne*, by Mr. *l'Ambassador de Sene-terre* 1636 and 1637.

Make a Stove around the Patient's Bed, either by Iron Rods, or strong Ropes, whereon you can fix new Blankets the whole Height of the Bed, at about a Foot or Two distance; then
take

take two new unglaz'd Pots or Pipkins, heated red hot in the Fire, and fill the same with the best Rose-Vinegar, in which first you have dissolv'd an Handful of Salt, and place them in the said Stove wherein the Infected lies, letting him remain so half an Hour, or as long as he can bear the Fumigation, which will procure large Sweats; then dry the Patient well with hot Cloths, and give him a slighter Fumigation of *Benjamin* and *Myrrh*, for a few Minutes, he still continuing in his Bed. Repeat this every Day as occasion requires.

After this, and at all times, nothing is better than to eat Marmalade of Quinces, acuated with a few Drops of Oil of Sulphur, made by the Bell; and frequently to chew Confects made of Berberries, Juniper Berries, &c. which are always profitable to be used fasting; as also the following Lozenges to keep in your Mouth. Take Citron-Peel ʒij, Zedoary, Angelica, of each, prepared in Rose Vinegar, ʒss, Citron-Seeds, Wood of Aloes, Orrice, of each ʒij, Saffron, Cloves, Nutmegs, ʒi; Myrrh, Ambergrise, of each gr. vii, Sugar-Candy ʒi, make into Lozenges, with Gum-Tragacanth and Rose-Water.

The following Sudorificks have been chiefly in Use. Take Carduus-Water ʒi, Angelica ʒfs, Diafcord. ʒi, Bol-Armen. ʒfs, Oliban ʒfs, Spec. Liberant ʒi, Flower of Brimstone gr. vi, Syrup of Woodsorrel ʒfs, for a Draught; or take Carduus Water ʒi, Poppy ʒfs, Treacle-Water ʒiij, Confect of Alkermes ʒfs, Salt of Wormwood, Lemnian Earth, of each ʒfs, Syrup of Citron ʒfs, for a Draught; or take Venice-Treacle, and the Electuary of an Egg, of each ʒs, dissolve in Scabious or Tormentil Water, of each ʒfs, and sweeten with Syrup of Lemon ʒij.

Or take *Majerus's* Prescription. Of Venice-Treacle ʒi, Anglica ʒfs, Salt of Wormwood, and Extract of Butter-Bur, of each ʒi, Oil of Rue and Mint, of each three Drops, Camphore dissolv'd in Spirit of Niter four Drops, Oil of Sulphur six Drops, white Wine-Vinegar ʒij, Rose-Water ʒs, make a Draught,

There are other various Sudorificks, the Forms of which will be too tedious for this Design; I shall therefore sum them up; as Confect of *Hyacinth*, *Mathiolus's* great Antidote, *Langius's* Water, Conserve of Ebulum or Dwarf-Elder, the cold Cordial, temperate Species, Elder Vinegar. The *Hungarian* red Powder,

der, oriental Bezoar, the Contrayerva
Stone, burnt Hart's-Horn, Antimony
Diaphoretick, Magistery of Pearl and
Coral prepared, japan Earth, Sulphur
vive &c.

Theophrastus Sudorifick, which *Quercetan*, *Matthiolus*, and many others, have own'd to excel all other galenical Prescriptions.

Take Venice-Treacle ℥vi, Myrrh ℥ij, Coltsfoot ℥iij, Swallowwort-Root ℥i, Spermaceti, seal'd Earth, of each ℥fs, Dictamny, Valerian, Pimpernel, of each ℥ij, old White-wine one Gallon, let 'em stand in Infusion eight Days close stop'd, then add Tincture of Salt of Tartar ℥i; Dose from one Spoonful to two, in Carduus, Scabious, Sorrel, or other appropriate Water.

For Women with Child, and Infants.

Take Species, Liberant, Diamagarit,
Frigid, of each $\mathfrak{z}i$, Conserv. Lujal $\mathfrak{z}fs$,
make a Bole; or take Diascord. $\mathfrak{z}fs$,
Juice of Kermes $\mathfrak{z}i$, seal'd Earth, and
Bol-Armen. of each $\mathfrak{z}i$, the cold Cordi-
al Species $\mathfrak{z}i$, Syrup of Sorrel $qs.$ for
two Doses, to be taken in any of the
former sudorifick Draughts; or the fol-
lowing, Rose-Water, and Treacle-Water,
of each six Drams, Syrup of Cowslips
two Drams. K For

For the same an Electuary ; Take Bol-Armen. wash'd in Rose-Water, ℥iij, lemnian Earth, red Coral, of each ℥i, candied Citron and Zedoary, of each ℥iss, Saffron ℥ss, Sugar of Roses ℥vi, Syrup of Lemons, enough for the Composition, give the Quantity of a Nutmeg, twice a Day, in a Glass of Clarret, or Rose-Water and Vinegar.

For Children ; make Lozenges of burnt Hart's-Horn, Bol-Arm. lemnian Earth and red Coral, with a due Quantity of Sugar dissolved in Rose-Water.

Corroborating and refreshing Medicines, after the Sweats are over, are Pearl Juleps, sweeten'd with Syrup of Lemons ; and such as are made with Alkermes, the cold Cordial Species, Coral, Bézoar, &c.

Or take Conserve of Borage ℥iv, Quiddony of Rasps, and Berberries, of each ℥i, Conserve of Violets ℥ij, Bol. ℥ij, Sanders, Coral, Citron-Seeds, Roots of Tormentil and Pimpernel, of each ℥i, with Juice of Citron make an Electuary, of which take at Pleasure.

Or take Conserve of Roses, Jam of Rasps, of each ℥ij, the cold Species of Pearl ℥ij, Amber ℥i, Crabs-Eyes ℥iss, lemnian Earth ℥ij, Syrup of Wood-Sorrel qs. Oil of Sulphur, by the Bell, ℥i, make an Electuary. Or

Or take the cold Species ʒi, Ambergrise gr̃ij, spec. Liberant ʒfs, Hart's-Horn burnt ʒij, seal'd Earth, Bole, an. ʒfs, Fragments of the Precious Stones, of each ʒi, oriental Bezoar ʒfs, white and red Coral, of each ʒfs, Pearl prepared ʒi, Oils of Citron and Nutmegs, of each four Drops, make a Powder of which, give a Scruple to a whole one, in Sack-Whey, Mary-gold Posset Drink, or other Vehicle.

Take yellow Sanders, red Rose-Leaves, in Powder, of each ʒij, Borage Flowers, Lemon, or Orange-Peel ʒi, Cinamon, Mace, Cloves, of each ʒi, make a Bag, or Bags, in which put the said Powder, and apply the same to the Region of the Heart, and bind them upon the Pulses of the Wrists.

The red Bezoarick Powder, us'd by the most Eminent Physicians in the last PLAGUE 1665; as Sir George Ent, Dr. Glisson, Sir Thomas Millington, Dr. Wharton, and many others.

Take Myrrh, Saffron, of each ʒfs, the Bone in a Stag's Heart ʒi, burnt Hart's-Horn ʒfs, Dictamny of Crete, Tormentil, Pimpernel, Gentian, of each ʒiv, Zedoary, Ginger, of each ʒi, Sulphur viv. Bole-Arm. Dragon's-Blood, of

each ʒij, Camphore ʒij, Venice-Treacle ʒfs, make into a Powder, and give from ʒi to ʒifs, twice a Day.

As to external Remedies, Vesicatories, or Blisters and Cupping-Glasses, are of great Consequence, if judiciously applied, either to the Buttocks, Back, Thighs, the Bottom of the Calves of the Legs, &c. but *Montanus* seems of a contrary Opinion as to the latter; *in pestilential Diseases*, he says, *where the Matter is great, if you endeavour to extract it by Cupping-Glasses, nothing can be worse, because you will draw out the fine subtile Parts, and the gross will remain, whereby the Heat will be diminished and Putrefaction encrease.* See *Montanus*, Lib. de feb. Pest. Cap. 50. For the Swellings under the Ears, Arm-pits, or in the Groin, they must always be drawn to a Head, ripen'd and broke with all Speed: These Tumours, and much more the *Carbuncles* and Blains, require the Surgeon's Care; however the following Method will highly contribute. Pluck the Feathers of the Tail of a Cock, Hen, Pidgeon, or Chicken, and holding their Bills close, apply the Fundament of the Fowl to the Botch or Swelling, and so keep it on till it dies, and this will draw out the Contagion;

gion ; Cupping Glaffes are alfo recommended, but with Caution.

The *Boil* or *Bubo* is an hard Tumour rifing in the glandulous Parts, call'd the Emunctories ; which are in three Places on each Side the Body, *viz.* under each Ear or Jaw, in the Arm-pits or Groins ; it lies sometimes very deep in the Flefh, eafy to be found by feeling, but if you touch the Part, there is Pain proceeding from a venemous infectious-Matter, that corrupts and poifons the Blood ; Nature therefore labours to drive this *Virus* to the Emunctories, which are the Sinks and Receptacles of excrementitious Humours.

This Tumour is to be broke by an Onion hollow'd and flop'd with Figs, Rue and Venice-Treacle, and roasted and apply'd hot ; or Scabious and Sorrel roasted and mixed with Leaven and Hogs-Greafe ; or Lillies, Scabious, Figs, Rue, and Salt-Butter, made into a Pultife ; or this, Take Elder-Flowers two Handfulls, Rocket-Seed bruifed one Ounce, Pidgeon's Dung three Drams, ftamp thefe and mix with Oil of Lillies, when 'tis broken, draw and heal it with the Yolk of an Egg, Honey of Rofes, Turpentine, Wheat-Flower, and *London* Treacle ; change this twice a Day, or apply *Diachylon cum Gummis*. The

The *Plague* is a kind of *Blister*, somewhat like One of the *Swine-Pocks*, of a Straw-Colour, for the most Part, but sometimes of a blewish or Lead-Colour, but then it is apt to turn to a Carbuncle, and when it runneth, yields a filthy stinking Matter; which, when discharged, the Skin falls, and dries up to a crusty Scab: This shews Nature is strong enough to expel the Poyson speedily; for many that have these are not sick at all.

The *Carbuncle* is a little venomous Pustle, with a broad Compass or Circle, of a deep Redness about it, wonderful angry, and burning like a Fire-Coal, whence 'tis call'd *Carbunculus*. The Way to cure it is to apply an actual or potential Caution, laying a Defensative of Bolc, mix'd with Vinegar and the White of an Egg, round about the Tumour, but not on it.

Or take three or four Cloves of Garlick, Rue, Figs, strong Leaven, and Mustard-Seed, with a little Oil of Roses, stamp 'em, and apply hot to the Sore; or Onions and Garlick roasted and mix'd with Venice-Treacle and Mithridate, apply'd hot three times a Day; or Mallow-Leaves, Camomil-Flowers, Lind-Seed and Hog's-Grease, or Oil of Lillies,

Lillies, beat into a Pultise, and apply'd hot to the Sore. So Valerian, Dwarf Elder, and Smallage, may be made into a Pultise, with Crumbs of Bread and Butter.

N. B. The Reader may shortly expect a full Description of the great *Pe-stilential* Antidotes of *Mayerne*, *Butler*, *Bate*, &c. and the various Preparations of the *Contrayerva Stone*, which cannot be brought within the Compass of this short Tract.

E R R A T A.

PAge 4. for *Gibson*, read *Glisson*. P. 9. for *Hungarian*, read *Hungarians*. P. 16. for *Malbighius*, read *Malpighius*. P. 21. for *turns*, read *turn*.

THE Names of Authors, and other
eminent Physicians, whose printed
Works, or Manuscripts are made use of
in this Tract.

Atkins,
Alexander Benedic-
tus,
Bate,
Bidloe,
Burrel.
Butler,
Conringius,
Fabritius,
Fracastorius,
Gardinius,
Goddard,
Gockelius,
Harvey,
Helmont,
Johnston,
Kircher,

Langius,
Leuwenhoeck,
Mahen,
Malpighius,
Mangetus,
Mayerne,
Mergagni,
Redi,
Regemorterus,
Rhede,
Scarburgh,
Tulpius,
Valescus de Taranta,
Vallisnerius,
Wedelius,
Wetherburn.